

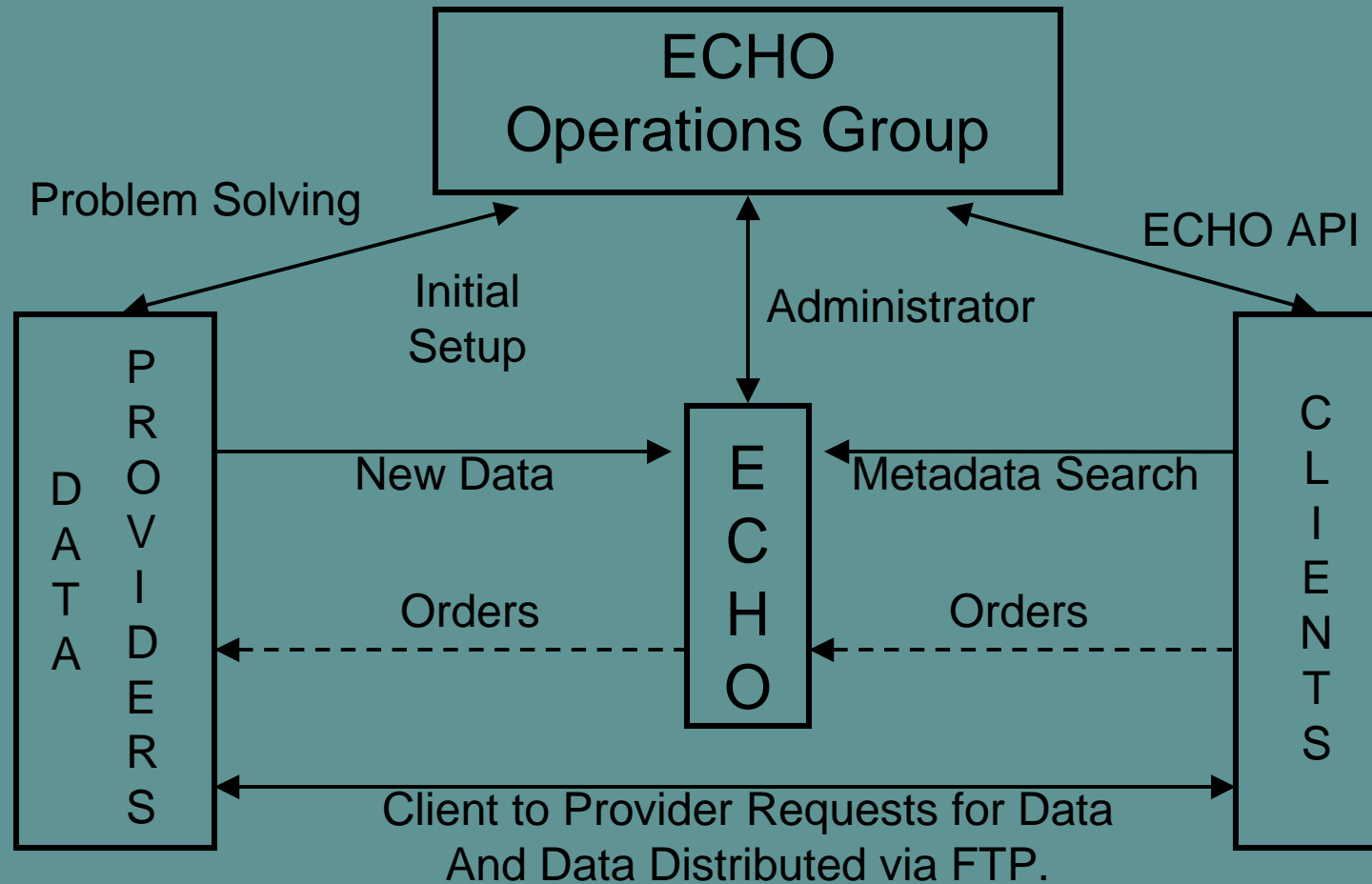
ECHO System Operations

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Global Science & Technology, Inc.

Operations Diagram



REQUIREMENTS TO BECOME A PROVIDER

Data Provider Type	Data Distribution Method	Metadata Inventory Method	Metadata / Data Format
Order Distribution Data Provider	Ftp or mailing data directly to the client, not through ECHO	In ECHO archive and kept in Provider archive	Fits ECHO DTD format or requires reformatting to fit ECHO DTD
Non-order Distribution Data Provider	URL link to client data archive, no data transfers	In ECHO archive and kept in Provider archive	Fits ECHO DTD format or requires reformatting to fit ECHO DTD

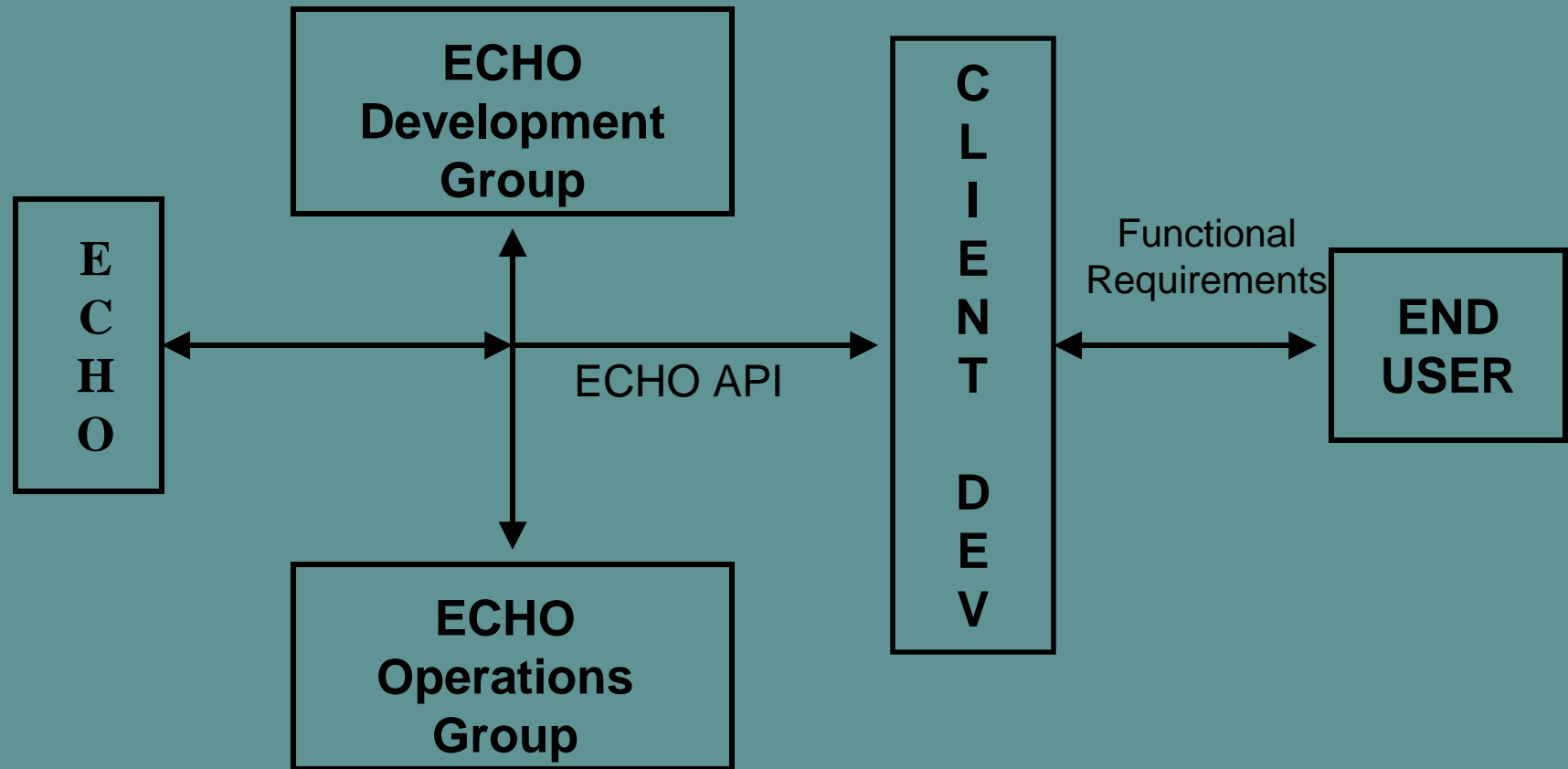


ECHO Clients

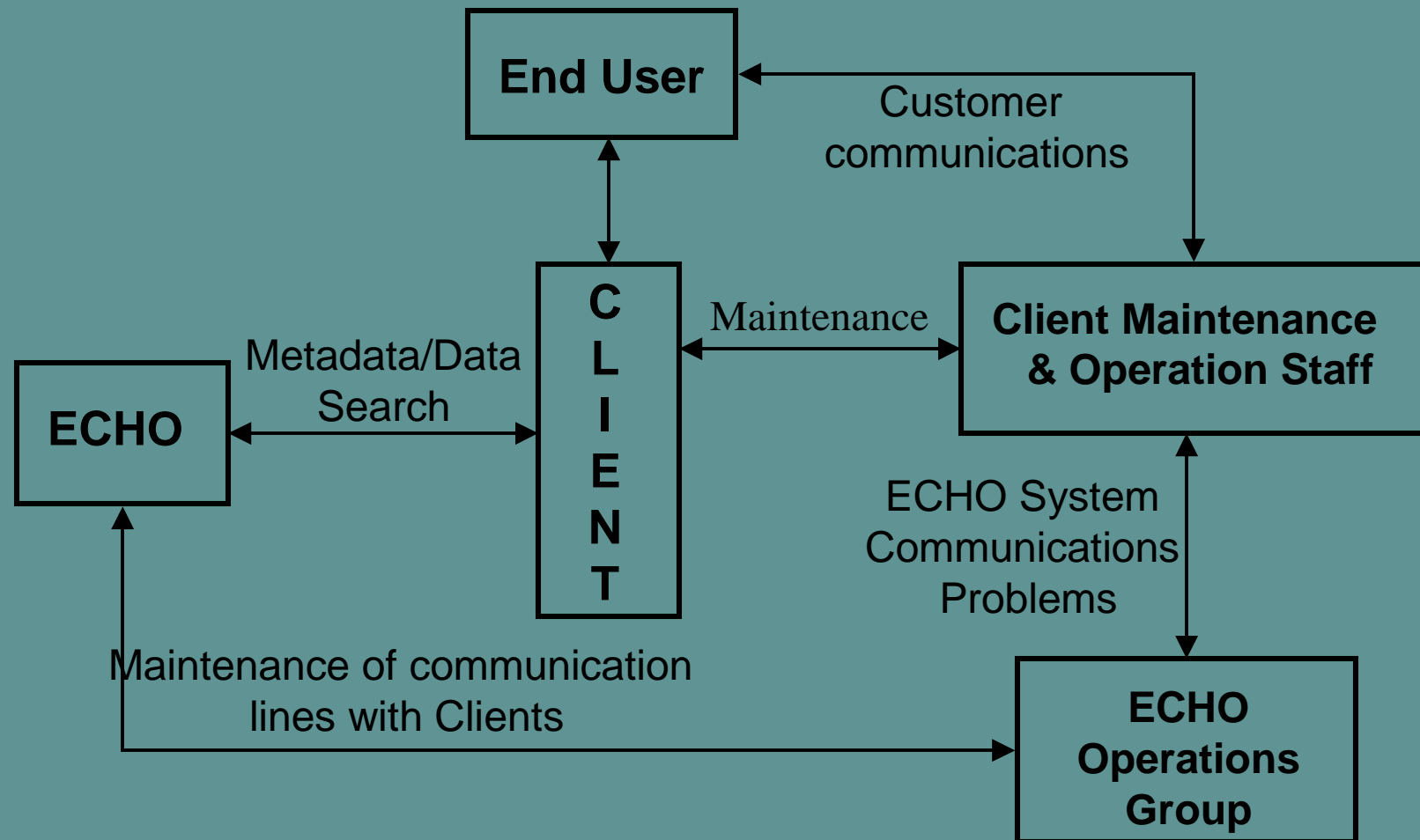
- ◆ Client Developers
- ◆ Client Maintenance & Operations Staff



Client Developers



Client Maintenance & Operations Staff



GENERAL SYSTEM MONITORING

- **Routine polling of system health**
- **Execution of application level tests that cover:**
 - Tests that check if Provider software and links are active
 - Tests that check if Provider is able to order and access ECHO
 - Tests that check network bandwidth



GENERAL SYSTEM MONITORING

- **General data maintenance:**
 - Cold and hot backups
 - Permanent backup to tape of metadata files received
- **Statistics report on system usage**



DATA AUDITING

- **Data Auditing**

- Check for Consistency, Syntax, & Semantics
- Data provided is checked to verify ECHO Data Model is used correctly
- Evaluate the use of Valids

- **Under Development**

- Provider Data Auditing Report
- General Statistics Report
- Ad Hoc Reports



In Conclusion

- **Data Providers**
 - Order distribution
 - Non-Order distribution
- **Clients**
 - Software that enables the access of the end user to the ECHO System
- **System Monitoring and Data Auditing**

